## Abstract of the Invention

The present invention provides methods and apparatus for the delivery of at least one chromosome into a cell. Invention methods and apparatus employ FACS or MACS technology for rapidly processing cells and for confirming the introduction of chromosome(s) into a cell. The introduction of the chromosome(s) into the cell is mediated by one or more of a laser, a linear accelerator or electrically induced fusion of a cell and encapsulated chromosome(s). Invention methods provide for the rapid and reliable processing associated with FACS and MACS technology to process thousands of cells a minute, thereby enabling large scale gene transfer.

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